IRISH (J. C.)

Two and One-Half Years' Experience

IN

ABDOMINAL SURGERY.

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RESUME OF TWO AND ONE-HALF YEARS' EXPERIENCE IN ABDOMINAL SURGERY.[1]

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On former occasions I have presented a report, more or less complete, of nearly all the laparotomies I had made previous to 1886, and I have reported but two or three of my cases since that date. In this paper, therefore, I shall present a brief summary of my work in abdominal surgery from the beginning of 1886 to the present time. My whole number of cases, as shown in the appended tables, during this period is twenty-five,—fifteen ovariotomies and ten abdominal sections for other affections.

The numbers attached to the cases indicate their chronological order.

Before calling your attention to the results as shown in the tables, and to those particular cases that seem to have an especial importance, it may not be amiss to say a few words of some of the details in the operation of ovariotomy. In that most important matter of all, the avoidance of any septic infection of the patient, the precautions I take will doubtless seem very inefficient to my antiseptic friends. I have simply attempted to secure an absolute cleanliness of the room with its contents, the patient, nurse, assistants, sponges, instruments, and silk.

[1] Read before the Middlesex North District Medical Society, July 25, 1888.

Before an operation, the silk has been boiled, and then, with the sponges and instruments, washed in a 1 per cent. carbolic solution. Especial care has been taken in cleaning the eyes of all the needles. A solution of carbolic acid of this strength has been shown to be utterly useless for the destruction of bacteria of any kind, and cannot, therefore, in any sense be considered as antiseptic.

Yet among the twenty-five cases, whose histories I present to-day, there is but one death that can by any possibility be charged to septic infection, and in this case I believe that the fatal result was due to some other cause.

Again, of those that have recovered, the temperature charts show their entire freedom from any sepsis. During their convalescence most have had a temperature that never exceeded 100° and none were higher than 101°, and that for only a short time. A sudden rise of temperature of a degree or more, lasting a few hours, often accompanies the appearance of a sanguineous discharge from the vagina, that usually occurs two or three days after an ovariotomy. This has been termed by one writer a "uterine epistaxis."

An incision at least three inches long I have found more convenient than a shorter one, and at the same time amply sufficient for the removal of single cyst tumors and multilocular cysts that do not contain much solid matter. Still I have never seen a laparotomy in which the length of the incision has apparently modified in any unfavorable way the subsequent progress of the patient.

Therefore, whenever it is difficult to reduce the size of a multilocular tumor, with the hand in the main cyst cavity to an extent that allows readily its withdrawal, or whenever adhesions interfere, I

believe it is much safer and better to sufficiently enlarge the incision than to employ strong traction. In this way all danger of rupturing the cyst, or of tearing off adhesions at places which will give troublesome hemorrhage, will be avoided.

The time occupied by an abdominal operation I believe to be an important factor in its influence upon the result.

The moment the abdominal cavity is opened and its contents begin to be handled or disturbed, the advent of shock is apparent in the patient, and is shown by an altered respiration and look of the countenance. This becomes more and more profound, so long as the manipulations continue. There is an immense difference, of course, in the degree of shock shown in different cases. Yet to a certain extent it is always present. The severity of it shows not only the present vitality or resisting power of the patient, but indicates, too, in some measure the future course of the case. Those cases in which the shock was profound, or long continued, or out of proportion to the severity of the operation have often gone badly with me. The reason that exsections of the intestines have been followed by so large a mortality is the great length of time the operation has required. The careful introduction of the thirty or forty Lambert sutures that are needed will occupy in expert hands at least an hour.

Post-mortem examinations after this operation have usually shown that death was not due to any failure of intestinal sutures or to peritoneal inflammation. The cause of death has been rather the shock and consequent exhaustion. Could this become an operation of fifteen minutes instead of an hour and a half, we might well expect from it many brilliant results. In the same manner, and almost

to an equal degree, is the success of an ovariotomy or hysterectomy affected by the duration of the operative procedures.

In the closure of the abdominal wound, the advantage of bringing peritoneal surfaces in contact throughout its entire length is conceded. Primary union at the bottom of the incision is thus certainly secured, and the peritoneal cavity protected from the entrance of foreign matter. Some operators advise sewing together the peritoneal edges before closing the remainder of the wound. I think I accomplish the same purpose as surely, and much more rapidly, by introducing interrupted sutures about one-half inch from the cut edge of the peritoneum on each side, and bringing them out through all the overlying structures.

Table I. gives a résumé of fifteen ovariotomies, with thirteen recoveries and two deaths. The latter were Cases Nos. 31 and 42.

In Case 31 the patient had been confined to her bed two weeks. She had chills and fever followed by frequent profuse perspirations. She had become so much prostrated, that at the time of the operation her pulse could scarcely be counted and she was unable to lift her head from the pillow. Her temperature was 102°. It was evident that she was suffering from a severe septicæmia, due to the abdominal growth, and that her only chance of recovery was in its removal.

Unpromising as our patient seemed, I decided to go on with the operation, with the faint hope that, the cause of the septicæmia removed, she might rally and recover. The removal of the tumor was a very simple matter, and the entire operation was completed in twenty-two minutes.

The patient, however, continued to fail, and died

two days after. The operation apparently neither retarded nor accelerated the fatal issue. Although the tumor, when removed, was a single cyst, it had evidently been multilocular. By degenerative changes the partition walls had become broken down, and the different cysts had coalesced.

The contents, about nine quarts in amount, had all the physical appearances of pus. Though no microscopical examination of the liquid was made to determine its character, still I believe it to have been purulent. The general symptoms and condition of the patient were such as we would have expected had there been a large collection of pus in the pleural cavity or elsewhere; viz., chills, fever, hectic, and prostration. When we recall that the lining membrane of ovarian cysts is usually covered with pavement epithelium, and that it otherwise closely resembles serous membranes, and that the latter, when acutely inflamed, always pour out pus or sero-pus, I think we may reasonably conclude that an ovarian cyst may sometimes contain pus, as well as a pleural cavity, or the closed peritoneum of a man. In short, these are examples of the formation of pus without the admission of air.

Case 42. Mrs. L., æt. 43. The patient had become very much enfeebled before the operation. Extensive degeneration of the cyst walls and contents had taken place, and had produced, as it always does, a marked depression of the general health. Extensive adhesions were found, especially within the pelvic cavity. The sac was torn in several places during its removal, and the case was still further complicated by a large amount of ascitic fluid and a fibroid uterus. The patient died on the eighth day, from intestinal obstruction. The cause of death was ascertained by a post-mortem.

TABLE I.—OVARIOTOMIES.

Number.	Name.	Residence or Place of Operation.	Date of Operation.	Medical Attendant or Assistants.	Age.	Length of Incision.	Double or Single Ovariotomy.	Character of Tumor.	Remarks.	Recovered.	Died.
			1886.								
26	Mrs. S.	Nashua.	March 10.	Drs. Dearborn, Currier and Prescott	29	8 in.	Single.	Multilocular.	Tumor consisted mainly of one large cyst, weight 42 lbs. No adhesions.	Recov.	
27	Mrs. R.	Lowell.	April 12.	Drs. Benoit, Parker, and Bradt.	26	3 in.	"	Unilocular.	Tumor weighed 17 lbs. No adhesions. Highest temperature after operation 99½°.	"	
28	Miss M.	Concord, N. H.	Nov. 4.	Drs. Walker, Conn, and Kimball.	49	8 in.	"	Fibroid tumor ovary.	Tumor weighed 8 lbs. Ascites. Firm adhesions within pelvis and above; general health very poor.	"	
30	Mrs. W.	New Boston, N.H.	Dec. 22.	Drs. Weaver, Dearborn, Dinsmore, and Blaisdell.	58	about 7 in.	"	Multilocular, nearly solid,	Extensive parietal and intestinal adhesions. Ascites. Tumor probably malignant. Died one year after of cancer of bowels.	"	
			1887.								
31	Miss P.	Carlisle.	Jan. 7.	Drs. Marsh, Benoit, and Gage.	46	3 in.	"	Unilocular, contents pus.	Parietal adhesions at time of operation. Temperature 102°. Pulse could not be counted. Could not sit up in bed. Weight about 20 lbs.		Died 2d day.

36	Miss D.	Lowell.	June 16.	Drs. Pillsbury, Benoit, and Bell.	30	3 in.	Single	Multilocular.	Extensive recent adhesions. Weight 25 lbs.	Recov.	
37	Miss D.	"	June 29.	Drs. Plunkett, Spalding, and Gage.	52	about 3 in.	"	Unilocular.	No rise of temperature. Weight about 30 lbs.	"	
38	Miss McG.	"	Aug. 13.	Drs. Plunkett, Fiske, and Bradt.	16	7 in.	"	Multilocular.	Ruptured cyst before operation. Weight 20 lbs	"	
40	Mrs. H.	Billerica.	Oct 6.	Drs. Howard, Lane, Wood.	53	3 in.	"	Multilocular.	Weight about 15 lbs. Sac degenerate and ruptured during operation.	"	
42	Mrs. L.	Pepperell.	Dec 20	Drs. Heald, Fletcher, and Benoit.	43	about 6 in.	"	Multilocular.	Sac and contents degenerate. Sac torn in removal. Extensive pelvic and other adhesions, complicated with fibroid uterus. Death from intestinal obstruction.		Died 8th day
43	Mrs. M.	Laconia, N. H.	1888 Feb 29.	Drs Dearborn and Wilber.	34	5 in.	Double	Dermoid.	Weight of tumor 20 lbs. Temperature and pulse remained normal after operation. No adhesions.	Recov.	
45	Mrs. F.	Charlestown, Mass.	April 3.	Drs. Sawin, Hammond, Frazer and Aldrich.	31	about 6 in.	"	Multilocular.	Weight 32 lbs. No adhesions.	"	
46	Mrs. W.	Charlestown, Mass.	May 10.	Drs Sawin, Hammond, Hanscom	54	7 in.	Single.	Parovarian.	Under broad ligament, behind peritoneum. Everywhere adherent. Enucleated. No pedicle. Weight 15 lbs.	"	
47	Mrs. G.	Dracut	May 24	Drs. Dutton, Heald, Sleeper.	42	9 in.	Double	Multilocular, nearly solid.	Weight about 25 lbs. No adhesions. No rise of temperature.	"	
50	Mrs. F.	Lowell.	July 5.	Drs. Chadbourne, Bell, Bradt, and Benoit.	32	4 in.	Single	Multilocular.	Weight 30 lbs. No adhesions.	"	

TABLE II.—MISCELLANEOUS LAPAROTOMIES.

Number.	Name.	Residence.	Date of Operation.	Medical Attendant or Assistants.	Age.	Character of Operation.	For diseases for which operation was made.	Remarks.	Recovered.	Died.
29	Mrs. M.	Lowell.	1886. Nov. 16.	Drs. Bass, Chadbourne, and Parker.	43	Hysterectomy.	Uterine fibroid.	Tumor weighed about 18 lbs. Pedicle treated with Dawson's clamp and pins.	Recov.	
32	Mrs. H.	Concord, N. H.	1887. Feb. 23.	Drs. Bass, Benoit, Bell, and Bradt.	69	Exploratory incision	Uterine fibroid.	Incision 12 in. Many adhesions ligated. Adhesions posteriorly and in pelvis prevented removal. Tumor has not grown since operation. Growing rapidly before.	Recov.	
33	Miss F.	Peterboro, N. H.	March 30.	Drs. Cutter, Chase, Haig, Hodgdon, and Aldrich.	38	Hysterectomy.	Fibro-cystic tumor of uterus.	Tumor weighed about 18 lbs. Pedicle brought out in Dawson's clamp. At post-mortem only cause of death extreme dilatation of stomach.		Died 5th day.
34	Mr. P.	Lowell.	April 1.	Drs. Chadbourne and Johnson.	26	Laparotomy.	Circumscribed peritoneal abscess.	Reported elsewhere.	Recov.	

35	Miss H.	Lowell.	May 14.	Drs Huntoon, Huntress, Bell.	50	Hysterectomy.	Carcinoma of body of uterus.	Ascites; been tapped, patient very week. Pedicle treated intraperitoneally.		Died 2nd day. Shock.
39	Mrs. B.	Nashua, N. H.	Aug. 17.	Drs. Dearborn, Wilber, Currier.	41	Hysterectomy.	Uterine fibroid.	At time of operation obstruction of bowels. Peritonitis. Tumor was gangrenous. Weight about 20 lbs.		Died 2nd day.
41	Miss W.	Lowell.	Oct. 22. 1888.	Drs. Chadbourne, Huntress, Bell.	2½ yrs.	Laparotomy.	Sero-pus in abdominal cavity.	At 2 years of age had empyema. Cured by incision. Six months later pus in abdominal cavity. Cavity irrigated. Now perfectly well.	Recov.	
44	Miss P.	Clinton.	March 29.	Drs. Cushing, Plunkett, Parker, Gage.	39	Hysterectomy.	Uterine fibroid.	Weight about 8 lbs. Pedicle treated externally. Rubber ligature and pins.	Recov.	
48	Mrs. C.	Cornish, Maine.	June 14.	Drs. Swasey, Chase, Wilson, and Norton.	54	Myomotomy.	Myoma from broad lig	Weight about 12 lbs. Ascites; tapped several times. Extremely feeble.		Died 4th day. Suppresion of urine.
49	Mrs. S.	Lowell.	June 20.	Drs. Smith, Cushing, Parker.	29	Myomotomy.	Myoma.	Tumor weighed about 10 lbs., looked like a myoma. Microscope showed malignancy.		Died 4th day.

Case 27. Before the operation, had frequent attacks of asthma and a moderate amount of albumen in the urine. Since that time the urine has become normal, and there has been no recurrence of the asthma. One year and one day from the date of the operation the patient gave birth to a child.

In Case No. 50, albumen was found in the urine, but since the removal of the tumor it has entirely disappeared.

Table II. contains five cases of hysterectomy, four for large uterine fibromata and one for carcinoma of the body of the uterus.

In the latter case I was compelled to treat the pedicle intraperitoneally. It could not be brought out at the lower angle of the wound. The patient did not completely rally from the shock of the operation, and died two days later. Whether any failure of the intraperitoneal ligatures contributed to the unfavorable result I do not know. Certainly no profuse hæmorrhage occurred. The generally enfeebled condition of the patient was sufficient to explain the failure of the operation.

In the four cases of hysterectomy for uterine fibroids, the pedicle was treated extraperitoneally. Dawson's clamp was used in three of them, and the rubber ligature in one.

Case 39. The fibroma extended nearly to the unciform cartilage, but had not perceptibly increased during the past two or three years. It gave the patient no trouble except by its weight and size. Therefore no operative interference had been advised. Suddenly, however, a violent peritonitis with great distention and obstruction of the bowels developed. Directly extreme prostration of the patient left no alternative except an immediate removal of the tumor. This was done three days

after the advent of peritonitis, but still too late to save her life.

There was an extensive purulent inflammation of the peritoneum. Fully one-half of the fibroid, which had grown, without the formation of any pedicle, directly from the body of the uterus, had become gangrenous. I am entirely at a loss to explain this sudden necrotic change in the tumor. Necrosis of a part or the whole of the tissues composing an ovarian cystoma often occurs, and is an impending danger during the entire period of their development.

Yet I had never before supposed that subperitoneal fibroids were in the least liable to an accident of this kind.

The fact, however, that they may become the seat of extensive necrosis, and thus fatal to the patient, is of some weight in determining the advisability of their removal.

No. 41. This was a case of abdominal section in a child thirty months old for purulent effusion within the peritoneum. Six months before, she had empyema, which was treated by free incision and drainage. Her recovery seemed complete, and she was strong and well. But in September she again began to lose flesh and color. The abdomen became distended and gave distinct fluctuation. October 22nd, an incision three inches long was made, and a considerable quantity of serum mingled with pus escaped. The abdominal cavity was washed out with many quarts of warm water, and the incision entirely closed. I felt that it would be safer in this instance to pursue this course, rather than use a drainage-tube. For if the liquid should reaccumulate, the cavity could again be opened. Fortunately, there has been no return of

the difficulty, and the child is now in perfect health. I have found several cases of empyema reported, in which a secondary purulent effusion has occurred within the peritoneum. In some of them no connection between the pleural and peritoneal cavities could be found.